Seat No.:	Enrolment No
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

M. E. - SEMESTER - II • EXAMINATION - WINTER • 2014

Subject code:1720807	Date: 05-12-2014
<b>Subject Name: Automation in Production</b>	n and Hydraulic
Time: 02:30 pm - 05:00 pm	Total Marks: 70

**Instructions:** 

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a) (b)	Discuss advantage and disadvantages of different types of automation. What are the reasons for automating?	07 07
Q.2	(a) (b)	Discuss: Automated Packaging.  Write a note on: Special purpose machine. Draw a layout for special purpose machine.  OR	07 07
	(b)	Discuss: Machining Centres.	07
Q.3	(a) (b)	Write a short-note on: automated assembly What are applications of automated assembly systems?	07 07
		OR	
Q.3	(a) (b)	Discuss: Design for Assembly Explain any one type of positive displacement pump with neat sketch.	07 07
Q.4	(a) (b)	List advantages and limitations of hydraulic control system.  List and explain in brief different elements of hydraulic system in general.  OR	07 07
Q.4	(a)	Name and draw symbols for any seven hydraulic elements for hydraulic control.	07
	<b>(b)</b>	Compare hydraulic operation over pneumatic.	07
Q.5	(a) (b)	Discuss use of following equipment: (i) Pressure relief valve, (ii) solenoid Write a short note on: gear pump.  OR	07 07
Q.5	(a) (b)	Sketch hydraulic circuit for a shaping machine, naming each element. Classify hydraulic cylinder.	07 07

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